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=> s CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/sqen
               3 CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
           88776 SQL=30
L1             3 CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
                  (CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN AND SQL=30)


=> s CGTTCCTCTTCCTGCGGCCT/sqen
               7 CGTTCCTCTTCCTGCGGCCT/SQEN
          403090 SQL=20
L2             7 CGTTCCTCTTCCTGCGGCCT/SQEN
                  (CGTTCCTCTTCCTGCGGCCT/SQEN AND SQL=20)


=> s CGTTCCTCTTCC/sqen
               3 CGTTCCTCTTCC/SQEN
          181136 SQL=12
L3             3 CGTTCCTCTTCC/SQEN
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=> s CTGACAGAGCCCAACTCTTCGCGGTGGCAG/sqen
               3 CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
           88776 SQL=30
L4             3 CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
                  (CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN AND SQL=30)


=> s CTGACAGAGCCCAACTCTTC/sqen
               3 CTGACAGAGCCCAACTCTTC/SQEN
          403090 SQL=20
L5             3 CTGACAGAGCCCAACTCTTC/SQEN
                  (CTGACAGAGCCCAACTCTTC/SQEN AND SQL=20)


=> s CCAACTCTTCGCGGTGGCAG/sqen
               3 CCAACTCTTCGCGGTGGCAG/SQEN
          403090 SQL=20
L6             3 CCAACTCTTCGCGGTGGCAG/SQEN
                  (CCAACTCTTCGCGGTGGCAG/SQEN AND SQL=20)


=> s GCTCTAGAATGAACGGTGGAAGGCGGCAGG/sqen
              10 GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
           88776 SQL=30
L7            10 GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
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DELETE L7? (Y)/N:y

=> s GCTCTAGAATGAACGGTGGAAGGCGGCAGG/sqen
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L7            10 GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
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=> s GCTCTAGAATGAACGGTGG/sqen
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          655282 SQL=19
L8             3 GCTCTAGAATGAACGGTGG/SQEN
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=> del L8
DELETE L8? (Y)/N:y

=> s GCTCTAGAATGAACGGTGG/sqen
               3 GCTCTAGAATGAACGGTGG/SQEN
          655282 SQL=19
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L8             3 GCTCTAGAATGAACGGTGG/SQEN
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=> s GCTCTAGAATGAACG/sqen
               3 GCTCTAGAATGAACG/SQEN
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L9             3 GCTCTAGAATGAACG/SQEN
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=> s GCTCTAGAATG/sqen
               3 GCTCTAGAATG/SQEN
           78387 SQL=11
L10            3 GCTCTAGAATG/SQEN
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=> s GCTCTAG/sqen
               1 GCTCTAG/SQEN
           49061 SQL=7
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          403090 SQL=20
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=> s CGGGCCAGCAGCTGACA/sqen
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L13            3 CGGGCCAGCAGCTGACA/SQEN
                 (CGGGCCAGCAGCTGACA/SQEN AND SQL=17)

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      (FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

      FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
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L2             7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3             3 S CGTTCCTCTTCC/SQEN
L4             3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5             3 S CTGACAGAGCCCAACTCTTC/SQEN
L6             3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7            10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8             3 S GCTCTAGAATGAACGGTGG/SQEN
L9             3 S GCTCTAGAATGAACG/SQEN
L10            3 S GCTCTAGAATG/SQEN
L11            1 S GCTCTAG/SQEN
L12            3 S CATTTTTTGTTTGCTCTAGA/SQEN
L13            3 S CGGGCCAGCAGCTGACA/SQEN

=> file caplus
COST IN U.S. DOLLARS                      SINCE FILE      TOTAL
                                            ENTRY        SESSION
FULL ESTIMATED COST                        104.46        104.67

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   substance identification.

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        (FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

        FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
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L4   3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
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L9   3 S GCTCTAGAATGAACG/SQEN
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L12   3 S CATTTTTTGTTTGCTCTAGA/SQEN
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        FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004

=> s L1
L14   1 L1

=> d ibib, abs L145
L145 NOT FOUND
The L-number entered has not been defined in this session, or it
has been deleted. To see the L-numbers currently defined in this
session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> end
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:end

=> d his

        (FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

        FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
L1   3 S CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2   7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3   3 S CGTTCCTCTTCC/SQEN
L4   3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5   3 S CTGACAGAGCCCAACTCTTC/SQEN
L6   3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7   10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8   3 S GCTCTAGAATGAACGGTGG/SQEN
L9   3 S GCTCTAGAATGAACG/SQEN

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L10             3 S GCTCTAGAATG/SQEN
L11             1 S GCTCTAG/SQEN
L12             3 S CATTTTTTGTTTGCTCTAGA/SQEN
L13             3 S CGGGCCAGCAGCTGACA/SQEN


     FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004
L14             1 S L1

=> d ibib, abs L14


L14   ANSWER 1 OF 1   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:       1998:479637   CAPLUS
DOCUMENT NUMBER:        129:91399
TITLE:                  Methods for detecting and inhibiting the RNA component
                        of telomerase with antisense oligonucleotides and
                        clinical use
INVENTOR(S):            Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan,
                        Ronald; Weinrich, Scott L.
PATENT ASSIGNEE(S):     Geron Corp., USA
SOURCE:                 PCT Int. Appl., 80 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:          Patent
LANGUAGE:               English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:


        PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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        WO 9828442          A1     19980702    WO 1997-US23619        19971219
          W:  AU, CA, JP, MX
          RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
        US 5846723          A      19981208    US 1996-770565         19961220
        CA 2274586          AA     19980702    CA 1997-2274586        19971219
        AU 9856148          A1     19980717    AU 1998-56148          19971219
        AU 733610           B2     20010517
        EP 951568           A1     19991027    EP 1997-952568         19971219
          R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
        JP 2001507229       T2     20010605    JP 1998-529003         19971219
PRIORITY APPLN. INFO.:                         US 1996-770564      A  19961220
                                               US 1996-770565      A  19961220
                                               WO 1997-US23619     W  19971219
AB   Disclosed are methods of using the oligonucleotide for detecting the RNA
     component of telomerase, diagnosing cancer, determining its prognosis, and
     inhibiting telomerase activity using polynucleotides that hybridize to the
     RNA component of mammalian telomerase.  Also provided are antisense
     oligonucleotides specifically hybridize to nucleotide residues 137-196,
     290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase,
     and the primers for determination of the RNA component in human telomerase.
     Pharmaceutical composition containing expression vectors for the antisense
     oligonucleotides is also claimed.
REFERENCE COUNT:          4      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



=> s L2
L15             3 L2

=> d ibib, abs L15 103
     3 ANSWERS ARE AVAILABLE.   SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):end


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(FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

      FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
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L2   7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3   3 S CGTTCCTCTTCC/SQEN
L4   3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5   3 S CTGACAGAGCCCAACTCTTC/SQEN
L6   3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7   10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8   3 S GCTCTAGAATGAACGGTGG/SQEN
L9   3 S GCTCTAGAATGAACG/SQEN
L10   3 S GCTCTAGAATG/SQEN
L11   1 S GCTCTAG/SQEN
L12   3 S CATTTTTTGTTTGCTCTAGA/SQEN
L13   3 S CGGGCCAGCAGCTGACA/SQEN

      FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004
L14   1 S L1
L15   3 S L2

=> d ibib, abs L15 1-3

L15   ANSWER 1 OF 3   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:670047   CAPLUS
DOCUMENT NUMBER: 131:297110
TITLE: Purification of human telomerase
INVENTOR(S):   Weinrich, Scott L.; Atkinson, Edward M., III;
                        Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
                        Ronald A.; Kealey, James T.
PATENT ASSIGNEE(S):   Geron Corporation, USA
SOURCE: U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 510,736,
                        abandoned.
                        CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5968506	A	19991019	US 1997-833377	19970404
US 6261556	B1	20010717	US 1999-420056	19991018
US 6517834	B1	20030211	US 2000-717828	20001120
US 6545133	B1	20030408	US 2000-717829	20001120
US 2003186282	A1	20031002	US 2002-330872	20021224
US 6787133	B2	20040907		

PRIORITY APPLN. INFO.:

			US 1995-510736	B2 19950804
			US 1997-833377	A1 19970404
			US 1999-420056	A2 19991018
			US 2000-717828	A1 20001120

AB   This invention provides purified human telomerase and methods of purifying
     it. The methods involve the use of several sequential steps, including
     the use of a first matrix that binds mols. bearing neg. charges, a matrix
     that binds mols. bearing pos. charges, a second matrix that binds mols.
     bearing neg. charges, an affinity purification step and a matrix that separates
     mols. according to their size. Human telomerase has been purified to over
     60,000-fold purity over cytoplasmic crude cell prepns. Two polypeptides
     that co-purify with fractions containing telomerase activity are present in
     the purified fractions in approx. stoichiometric amts. with the RNA
     component of human telomerase have been isolated. One polypeptide has
     amino and sequences consistent with nucleolin. The other polypeptide has
     amino acid sequences consistent with elongation factor 2 homolog.

L15 ANSWER 2 OF 3   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:682538   CAPLUS
DOCUMENT NUMBER: 129:299661
TITLE: Purification of human telomerase
INVENTOR(S):   Weinrich, Scott L.; Atkinson, Edward M., III;
                             Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
                             Ronald A.; Kealey, James T.
PATENT ASSIGNEE(S):   Geron Corporation, USA
SOURCE: PCT Int. Appl., 76 pp.
                             CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845450	A1	19981015	WO 1997-US6012	19970404

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
    DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
    LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
    RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU,
    AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
    GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
    ML, MR, NE, SN, TD, TG

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AU 9724548	A1	19981030	AU 1997-24548	19970404
AU 746306	B2	20020418		
EP 981627	A1	20000301	EP 1997-920326	19970404
EP 981627	B1	20030917		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, FI

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001509681	T2	20010724	JP 1998-542718	19970404
AT 250130	E	20031015	AT 1997-920326	19970404
ES 2208895	T3	20040616	ES 1997-920326	19970404
MX 9909005	A	20000630	MX 1999-9005	19991001

PRIORITY APPLN. INFO.:   EP 1997-920326   A   19970404
                                        WO 1997-US6012   A   19970404

AB   This invention provides purified human telomerase and methods of purifying
     it. The methods involve the use of several sequential steps, including
     the use of a first matrix that binds mols. bearing neg. charges, a matrix
     that binds mols. bearing pos. charges, a second matrix that binds mols.
     bearing neg. charges, an affinity purification step and a matrix that separates
     mols. according to their size. Thus, human telomerase was purified to
     over 60,000-fold purity from 293 cell exts. Two proteins that copurify
     with fractions containing telomerase activity and that are present in the
     purified fractions in approx. stoichiometric amts. with the RNA component
     were isolated. One protein has a sequence consistent with nucleolin, the
     other with elongation factor 2 homolog.

L15 ANSWER 3 OF 3   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:479637   CAPLUS
DOCUMENT NUMBER: 129:91399
TITLE: Methods for detecting and inhibiting the RNA component
                             of telomerase with antisense oligonucleotides and
                             clinical use
INVENTOR(S):   Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan,
                             Ronald; Weinrich, Scott L.
PATENT ASSIGNEE(S):   Geron Corp., USA

```
SOURCE:                    PCT Int. Appl., 80 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:             Patent
LANGUAGE:                  English
FAMILY ACC. NUM. COUNT:    1
PATENT INFORMATION:

        PATENT NO.          KIND   DATE        APPLICATION NO.           DATE
        ---------------     ----   --------    --------------------      --------
        WO 9828442          A1     19980702    WO 1997-US23619           19971219
           W:  AU, CA, JP, MX
           RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
        US 5846723          A      19981208    US 1996-770565            19961220
        CA 2274586          AA     19980702    CA 1997-2274586           19971219
        AU 9856148          A1     19980717    AU 1998-56148             19971219
        AU 733610           B2     20010517
        EP 951568           A1     19991027    EP 1997-952568            19971219
           R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, FI
        JP 2001507229       T2     20010605    JP 1998-529003            19971219
PRIORITY APPLN. INFO.:                         US 1996-770564     A      19961220
                                               US 1996-770565     A      19961220
                                               WO 1997-US23619    W      19971219
```

AB   Disclosed are methods of using the oligonucleotide for detecting the RNA
     component of telomerase, diagnosing cancer, determining its prognosis, and
     inhibiting telomerase activity using polynucleotides that hybridize to the
     RNA component of mammalian telomerase. Also provided are antisense
     oligonucleotides specifically hybridize to nucleotide residues 137-196,
     290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase,
     and the primers for determination of the RNA component in human telomerase.
     Pharmaceutical composition containing expression vectors for the antisense
     oligonucleotides is also claimed.
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REFERENCE COUNT:            4       THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                    RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


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        (FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

        FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
L1            3 S CGTTCCTCTTCCTGCGGCCTGAAACGGTGA/SQEN
L2            7 S CGTTCCTCTTCCTGCGGCCT/SQEN
L3            3 S CGTTCCTCTTCC/SQEN
L4            3 S CTGACAGAGCCCAACTCTTCGCGGTGGCAG/SQEN
L5            3 S CTGACAGAGCCCAACTCTTC/SQEN
L6            3 S CCAACTCTTCGCGGTGGCAG/SQEN
L7           10 S GCTCTAGAATGAACGGTGGAAGGCGGCAGG/SQEN
L8            3 S GCTCTAGAATGAACGGTGG/SQEN
L9            3 S GCTCTAGAATGAACG/SQEN
L10           3 S GCTCTAGAATG/SQEN
L11           1 S GCTCTAG/SQEN
L12           3 S CATTTTTTGTTTGCTCTAGA/SQEN
L13           3 S CGGGCCAGCAGCTGACA/SQEN


        FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004
L14           1 S L1
L15           3 S L2

=> s L3
L16           1 L3

=> s L4
L17           1 L4
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=> s L5
L18          1 L5

=> s L6
L19          1 L6

=> s L7
L20          5 L7

=> d ibib, abs L20 1-5
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L20   ANSWER 1 OF 5   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:276752   CAPLUS
DOCUMENT NUMBER: 138:283318
TITLE: Sequential purification of mammalian telomerase
                           including affinity chromatography using
                           oligonucleotide sorbents
INVENTOR(S):   Weinrich, Scott L.; Atkinson, Edward M., III;
                           Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
                           Ronald A.
PATENT ASSIGNEE(S):   Geron Corporation, USA
SOURCE: U.S., 24 pp., Cont.-in-part of U.S. 6,261,556.
                           CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6545133	B1	20030408	US 2000-717829		20001120
US 5968506	A	19991019	US 1997-833377		19970404
US 6261556	B1	20010717	US 1999-420056		19991018
PRIORITY APPLN. INFO.:			US 1995-510736	B2	19950804
			US 1997-833377	A1	19970404
			US 1999-420056	A2	19991018

AB   This invention provides purified mammalian telomerase and methods of
     purifying it. The methods involve the use of several sequential steps,
     including the use of anion exchange matrix, heparin-containing matrix,
     spermidine-containing matrixes, gel filtration chromatog. or gradient
     centrifugation, and affinity purification An affinity agent (oligonucleotide
     complementary to the RNA component of telomerase labeled with biotin and
     isolated with matrix-bound streptavidin) is disclosed. A method for
     preparing human telomerase that is 65,320-fold purified compared to that in
     crude cell extract is described. The method comprises six steps in
     succession: (1) CHAPS detergent S-100 extract preparation from 293 cells; (2)
     chromatog. of the S-100 extract on POROS 50HQ matrix; (3) chromatog. of the
     POROS 50HQ active fractions on POROS Heparin 20HE-1 matrix; (4) chromatog.
     of the POROS Heparin 20 HE-1 active fractions on POROS spermidine matrix;
     (5) chromatog. of the POROS Spermidine active fractions on Superose 6
     sizing column; and (6) chromatog. of the Superose 6 sizing column active
     fractions on Oligo 5 affinity matrix.
REFERENCE COUNT: 43   THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20   ANSWER 2 OF 5   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:113309   CAPLUS
DOCUMENT NUMBER: 138:165719
TITLE: Chromatographic purification of human telomerase from
                           293 cells
INVENTOR(S):   Weinrich, Scott L.; Atkinson, Edward M., III;
                           Lichtsteiner, Serge P.; Vasserot, Alain P.; Pruzan,
                           Ronald A.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6517834	B1	20030211	US 2000-717828	20001120
US 5968506	A	19991019	US 1997-833377	19970404
US 6261556	B1	20010717	US 1999-420056	19991018
US 2003186282	A1	20031002	US 2002-330872	20021224
US 6787133	B2	20040907		

PRIORITY APPLN. INFO.:

US 1995-510736	B2	19950804
US 1997-833377	A1	19970404
US 1999-420056	A2	19991018
US 2000-717828	A1	20001120

AB   This invention provides purified human telomerase and methods of purifying
     it. The methods involve the use of several sequential steps, including
     the use of matrixes that bind mols. bearing neg. charges, matrixes that
     bind mols. bearing pos. charges, intermediate-selectivity matrixes,
     methods that sep. mols. based on their size, shape, or buoyant d., and by
     affinity purification Human telomerase was purified to over 60,000-fold purity
     from 293 cell exts. This method comprises six steps in succession: (1)
     CHAPS detergent S-100 extract preparation from 293 cells; (2) chromatog. of the
     S-100 extract on POROS 50HQ matrix; (3) chromatog. of the POROS 50HQ active
     fractions of POROS Heparin 20HE1 matrix; (4) chromatog. of the POROS
     Heparin 20HE1 active fractions on POROS spermidine matrix; (5) chromatog.
     of the POROS Spermidine active fractions on Superose 6 sizing column; and
     (6) chromatog. of the Superose 6 sizing column active fractions on Oligo 5
     affinity matrix. A telomere primer elongation assay for mammalian
     telomerase is also described.
REFERENCE COUNT: 45   THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB   Telomerase is a ribonucleoprotein responsible for maintaining telomeres in
     nearly all eukaryotic cells. The enzyme is able to utilize a short
     segment of its RNA subunit as the template for the reverse transcription
     of d(TTAGGG) repeats onto the ends of human chromosomes. Transfection
     with telomerase was shown to confer immortality on several types of human
     cells. Moreover, telomerase activation appears to be one of the key
     events required for malignant transformation of normal cells. Inhibition
     of telomerase activity in transformed cells results in the cessation of
     cell proliferation in cultures and provides the rationale for the
     selection of telomerase as a target for anticancer therapy. Using
     oligonucleotide N3'→P5' phosphoramidates (NPs) we have identified a
     region of the human telomerase RNA subunit (hTR) .apprx.100 nt downstream
     from the template region whose structural integrity appears crucial for
     telomerase enzymic activity. The oligonucleotides targeted to this

segment of hTR are potent and specific inhibitors of telomerase activity in biochem. assays. Mutant telomerase, in which 3 nt of hTR were not complementary to a 15 nt NP, was found to be refractory to inhibition by that oligonucleotide. We also demonstrated that the binding of NP oligonucleotides to this hTR allosteric site results in a marked decrease in the affinity of a telomerase substrate (single-stranded DNA primer) for the enzyme.

REFERENCE COUNT: 37   THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:747525 CAPLUS
DOCUMENT NUMBER: 135:308851
TITLE: Methods for inhibiting telomerase activity with
                          antisense oligonucleotides and therapeutic uses
                          thereof
INVENTOR(S):   Gryaznov, Sergei M.; Pruzan, Ronald; Weirich, Scott L.
PATENT ASSIGNEE(S):   Geron Corporation, USA
SOURCE: PCT Int. Appl., 48 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001074136	A2	20011011	WO 2001-US10476	20010330
WO 2001074136	A3	20031030		

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     W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         CO, CR, CU, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
         HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
         LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
         SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, ZA, ZW
     RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
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	KIND	DATE	APPLICATION NO.		DATE
AU 2001049723	A5	20011015	AU 2001-49723		20010330

PRIORITY APPLN. INFO.:   US 2000-540119   A 20000331
                                             WO 2001-US10476   W 20010330

AB   Antisense oligonucleotide inhibitors and methods for inhibiting telomerase
     activity are provided. The polynucleotide inhibitors are substantially
     complementary to a portion of the human telomerase RNA component in a
     non-template region between nucleotide 137 and nucleotide 179 and contain
     certain modified nucleotide residues or certain modified linkages between
     adjacent nucleotides. The antisense oligonucleotide inhibitors are useful
     in method for the treatment or prevention of a telomerase-related
     condition, such as cancer.

L20 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:479637 CAPLUS
DOCUMENT NUMBER: 129:91399
TITLE: Methods for detecting and inhibiting the RNA component
                          of telomerase with antisense oligonucleotides and
                          clinical use
INVENTOR(S):   Kim, Nam Woo; Wu, Fred; Kealey, James T.; Pruzan,
                          Ronald; Weinrich, Scott L.
PATENT ASSIGNEE(S):   Geron Corp., USA
SOURCE: PCT Int. Appl., 80 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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        PATENT NO.           KIND   DATE      APPLICATION NO.           DATE
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        WO 9828442           A1     19980702  WO 1997-US23619           19971219
             W:  AU, CA, JP, MX
             RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
        US 5846723           A      19981208  US 1996-770565            19961220
        CA 2274586           AA     19980702  CA 1997-2274586           19971219
        AU 9856148           A1     19980717  AU 1998-56148             19971219
        AU 733610            B2     20010517
        EP 951568            A1     19991027  EP 1997-952568            19971219
             R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
        JP 2001507229        T2     20010605  JP 1998-529003            19971219
PRIORITY APPLN. INFO.:                        US 1996-770564      A     19961220
                                              US 1996-770565 ,    A     19961220
                                              WO 1997-US23619     W     19971219
AB   Disclosed are methods of using the oligonucleotide for detecting the RNA
     component of telomerase, diagnosing cancer, determining its prognosis, and
     inhibiting telomerase activity using polynucleotides that hybridize to the
     RNA component of mammalian telomerase.  Also provided are antisense
     oligonucleotides specifically hybridize to nucleotide residues 137-196,
     290-319, and 350-380 of the cDNA (SEQ. ID 1) encoding human telomerase,
     and the primers for determination of the RNA component in human telomerase.
     Pharmaceutical composition containing expression vectors for the antisense
     oligonucleotides is also claimed.
REFERENCE COUNT:            4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d his

     (FILE 'HOME' ENTERED AT 09:48:12 ON 05 NOV 2004)

     FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
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     FILE 'CAPLUS' ENTERED AT 09:55:52 ON 05 NOV 2004
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L16           1 S L3
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=> s L9
L22           1 L9
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=> s L10
L23            2 L10

=> d ibib, abs L23

L23   ANSWER 1 OF 2   CAPLUS   COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2001:747525   CAPLUS
DOCUMENT NUMBER:         135:308851
TITLE:                   Methods for inhibiting telomerase activity with
                         antisense oligonucleotides and therapeutic uses
                         thereof
INVENTOR(S):             Gryaznov, Sergei M.; Pruzan, Ronald; Weirich, Scott L.
PATENT ASSIGNEE(S):      Geron Corporation, USA
SOURCE:                  PCT Int. Appl., 48 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:


        PATENT NO.          KIND    DATE       APPLICATION NO.           DATE
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        WO 2001074136        A2     20011011    WO 2001-US10476          20010330
        WO 2001074136        A3     20031030
           W:   AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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                HU, ID, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
                LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
                SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, ZA, ZW
           RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
                ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF,
                CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG
        AU 2001049723        A5     20011015    AU 2001-49723            20010330
PRIORITY APPLN. INFO.:                          US 2000-540119      A    20000331
                                                WO 2001-US10476     W    20010330
AB    Antisense oligonucleotide inhibitors and methods for inhibiting telomerase
      activity are provided.  The polynucleotide inhibitors are substantially
      complementary to a portion of the human telomerase RNA component in a
      non-template region between nucleotide 137 and nucleotide 179 and contain
      certain modified nucleotide residues or certain modified linkages between
      adjacent nucleotides.  The antisense oligonucleotide inhibitors are useful
      in method for the treatment or prevention of a telomerase-related
      condition, such as cancer.



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      FILE 'REGISTRY' ENTERED AT 09:48:22 ON 05 NOV 2004
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